

**REMARKS**

This paper is filed in response to the office action mailed on July 20, 2004.

In the office action, the disclosure is objected to due to some informalities and claim 15 is objected to as well. In response, the specification and claim 15 have been amended to traverse these objections. The office action also rejects claims 15-22 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite due to use of the term "the overlap portion" in claim 15. In response, this term has been deleted from claim 15 thereby traversing this rejection. Applicants respectfully submit that all claims are in full compliance with 35 U.S.C. § 112.

Turning to the rejections based upon the prior art, the Patent Office rejects claims 1, 3, 7-14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,225,034 ("Yu"). In response, independent claim 1 has been amended to exclude the possibility of the  $\text{HXO}_n$  compound being hypochlorous acid. Thus, the slurry of claim 1 includes a  $\text{HXO}_n$  compound, but that compound cannot be hypochlorous acid. Yu, in contrast, teaches a polishing slurry with an oxidant and the closest oxidant to the family recited in amended claim 1 is hypochlorous acid. None of the other oxidants taught or suggested by Yu, including hydrogen peroxide, potassium hypochlorite, acetic acid or  $\text{KMgO}_4$ , satisfy the limitations of amended claim 1.

Specifically, under MPEP § 2131,

[t]o anticipate a claim, the reference must teach every element of the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

*Citing, Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Because Yu does not teach or suggest the oxidant required by amended claim 1, Yu cannot serve as an anticipating reference for amended claim 1. Therefore, because claim 1 is not anticipated, the anticipation rejection of independent claim 1 and dependent claims 3 and 7-14 based upon Yu is improper and should be withdrawn.

Next, the Patent Office rejects claims 1, 3 and 5-6 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,800,577 ("Kido"). However, claim 1 has been amended to traverse this rejection as well. Specifically, Kido only teaches a slurry with

nitric acid as its oxidant. Because nitric acid does not satisfy the oxidant limitations of amended claim 1, the anticipation rejection of independent claim 1 and dependent claims 3 and 5-6 based upon Kido is improper and should be withdrawn.

Next, the Patent Office rejects claims 1-4 and 11-12 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,861,054 ("Miyashita"). However, claim 1 has been amended to traverse this rejection as well. Specifically, Miyashita only teaches nitric acid as an oxidant. Miyashita's disclosure of an oxidant therefore does not meet the oxidant limitations of amended claim 1 as nitric acid cannot satisfy the limitations of amended claim 1. Therefore, Miyashita cannot serve as an anticipating reference and the anticipation rejection of independent claim 1 and dependent claims 2-4 and 11-12 based upon Miyashita is improper and should be withdrawn.

Turning to the obviousness rejections, the Patent Office rejects claims 15-16 and 19 under 35 U.S.C. § 103 as being unpatentable over a variety of references including the use of two base references: U.S. Patent No. 6,060,783 ("Juengling") and Miyashita. Specifically, claims 15-16 and 19 stand rejected as being unpatentable over Juengling and Miyashita.

However, claim 15 depends from allowable claim 1. Juengling does not teach or suggest the family of oxidants to which claim 1 is limited. As noted above, neither does Miyashita.

Therefore, no combination of Juengling and Miyashita can serve as an obviousness rejection for any claim that depends from claim 1 because, under MPEP §§ 2142 and 2143,

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

*Citing, In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *see also* MPEP § 2143-§ 2143.03 for decisions pertinent to each of these criteria.

Simply put, no combination of Juengling and Miyashita teaches or suggests all of the limitations of the claims and there is no teaching or suggestion in either Juengling or Miyashita to expand the list of oxidants of Miyashita beyond nitric acid and to include the novel use of the oxidants recited in amended claim 1. Therefore, there is no possible way for any obviousness rejection based upon Juengling and Miyashita to establish a *prima facie* case of obviousness and therefore the obviousness rejections of claims 15-16 and 19 based upon Juengling and Miyashita is improper and should be withdrawn.

Next, claims 17 and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Juengling, Miyashita and further in view of U.S. Patent No. 5,877,052 ("Lin"). However, neither Juengling nor Lin teach or suggest the oxidants required by amended claim 1. Miyashita is limited only to nitric acid and therefore does not teach or suggest the oxidants required by amended claim 1. Therefore, no combination of these hypothetical references teaches or suggests the slurry of amended claim 1 or the use of that slurry as recited in amended claim 15. Therefore, claims 17 and 21 which are dependent upon claim 15, which is dependent upon claim 1 are all allowable over any hypothetical combination of Juengling, Miyashita and Lin and therefore the obviousness rejection of claims 17 and 21 is improper and should be withdrawn.

Next, the Patent Office rejects claim 18 under 35 U.S.C. § 103 as being unpatentable over Juengling, Miyashita and further in view of U.S. Patent No. 5,994,232 ("Clampitt"). However, Clampitt is merely cited for the proposition that it teaches word line spacers. Clampitt does not teach or suggest the oxidant family required by amended claim 1. Neither does Juengling nor Miyashita. Therefore, no hypothetical combination of these three references teaches or suggests the slurry of claim 1, the method of using that slurry of claim 15 (which is limited to the slurry of claim 1) and therefore the obviousness rejection of dependent claim 18 based upon the hypothetical combination of these three references is improper and should be withdrawn.

Next, the office action rejects claim 20 under 35 U.S.C. § 103 as being unpatentable over Juengling, Miyashita and further in view of U.S. Patent No. 6,033,962 ("Jeng"). However, Jeng is only cited for the proposition of the specific etching gases that it teaches. Jeng does not teach or suggest oxidants for polishing slurries. Therefore, Jeng does not teach or suggest the family of oxidants required by amended claim 1 and, as noted above, neither does Miyashita or Juengling. Therefore, no hypothetical combination of these three

references teaches or suggests the slurry of claim 1, the method of using the specific slurry of claim 1 as recited in claim 15 or dependent claim 20 which depends from claim 15.

Therefore, the obviousness rejection of claim 20 based upon Juengling, Miyashita and Jeng is improper and should be withdrawn.

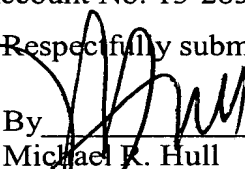
Finally, claim 22 is rejected under 35 U.S.C. § 103 as being unpatentable over Juengling, Miyashita and further in view of U.S. Patent No. 5,142,828 ("Curry"). However, Curry merely teaches the use of hard pads and does not teach or suggest the oxidants required by amended claim 1 or the use of the slurry of claim 1 as recited by claim 15. Because claim 22 depends from allowable claim 15 and allowable claim 1, applicants respectfully submit that the rejection of claim 22 as being obvious in view of Juengling, Miyashita and Curry is improper and should be withdrawn.

With all prior art rejections having been traversed, applicants respectfully submit that this application is in a condition for allowance and an early action so indicating is respectfully requested.

The Commissioner is authorized to charge any fee deficiency required by this paper, or credit any overpayment, to Deposit Account No. 13-2855.

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